

SHORT REPORT

Sexually transmitted infections in Bangladeshi resident in the UK: a case-control study

C J Skinner, N K G Saulsbury, B T Goh

Sex Transm Infect 2002;**78**:120–122

Objective: To evaluate the prevalence of sexually transmitted infections (STIs) and mode of presentation in patients originating from Bangladesh and resident in the United Kingdom in comparison with non-Bangladeshi patients attending an inner London genitourinary medicine (GUM) clinic.

Methods: A retrospective, cross sectional study with comparator group was carried out at an open access GUM clinic in east London. 104 consecutive newly attending Bangladeshi men were compared with 199 consecutive newly attending non-Bangladeshi men and 115 consecutive newly attending Bangladeshi women were compared with 218 consecutive newly attending non-Bangladeshi women. Any diagnosed sexually transmitted infections, sexual history characteristics, reasons for presentation, and referral patterns were noted.

Results: Bangladeshi men (28.8% compared with 7.5%; $p < 0.0001$) and women (42.7% compared with 12.8%; $p < 0.0001$) were more likely to be referred by their general practitioners or other medical services. Bangladeshi men were more likely to present with sexual dysfunction (12.5% compared with 2.5%; $p = 0.001$). The prevalence of STIs was broadly similar across the study groups; however, syphilis was significantly more common in the Bangladeshi men (10.9% compared with 4%; $p = 0.04$) and non-gonococcal urethritis (NGU) in the control men (35% compared with 20.2%; $p = 0.02$). Bacterial vaginosis was an infrequent diagnosis in the Bangladeshi women (3.5% compared with 22.4%; $p < 0.0001$).

Conclusions: STI prevalence in Bangladeshis attending GUM services is similar to other populations although patterns of presentation and referral do show variation. Bangladeshi men are more likely to access GUM clinics for psychosexual services. The presence of STIs in Bangladeshis particularly those imported from Bangladesh provides an opportunity for HIV transmission between the United Kingdom and Bangladesh.

Twenty six per cent of the population of the London borough of Tower Hamlets are of Bangladeshi origin.¹ The epidemiology of STIs in the Bangladeshi population is largely unknown and to our knowledge no data exist on STI prevalence in immigrant Bangladeshi communities in the United Kingdom. Studies from Bangladesh suggest variable rates of STIs and HIV prevalence dependent on the population sampled.^{2–5} This study assessed the prevalence of STIs and the mode of presentation in Bangladeshi patients in comparison with the local indigenous population attending an inner London GUM clinic.

METHODS

A retrospective cross sectional study was performed in 1995. One hundred and four consecutive new male and 115

consecutive new female Bangladeshis were sampled. Controls were the preceding and subsequent newly attending, non-Bangladeshi patients, providing a 2:1 ratio.

A standardised proforma was used to collect epidemiological data, presenting problems, sexual history, and clinical findings from the case notes. Samples for *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and non-gonococcal urethritis (NGU) were taken in men and additionally *Candida albicans*, *Trichomonas vaginalis*, and bacterial vaginosis in women. Serological tests for syphilis, hepatitis B, and HIV testing were performed with informed consent. Other tests were performed as clinically indicated. Diagnoses of genital warts and pelvic inflammatory disease (PID) were made on clinical grounds.

Statistical comparisons were made using χ^2 and Fisher's exact tests with SPSS (Statistical Package for Social Sciences) software, version 10.0 (SPSS Inc, Chicago, IL, USA).

RESULTS

The populations were of comparable age (table 1). Ninety nine (95.2%) Bangladeshi men and 112 (97.4%) women were born in Bangladesh.

Presentation was classified into one of four categories as shown in table 1. The proportion of primary presentations with genital symptoms was similar among all groups. A significantly higher proportion of Bangladeshi men presented with sexual dysfunction compared to the male controls. Both Bangladeshi men and women were less likely to be asymptomatic at presentation (23.1% Bangladeshi men compared with 34.7% the control men $p = 0.04$, and 20.0% Bangladeshi women compared with 31.7% the control women $p = 0.02$).

Bangladeshi men and women were both more likely to be referred by other medical practitioners, including general practitioners and family planning services, than the control groups, where self referral was higher. However, source of referral was not significantly associated with whether or not a STI was diagnosed.

There were similarities in the overall prevalence of the major STIs in the male patients. Bangladeshi men were significantly less likely to present with one or more of gonorrhoea, chlamydial infection, NGU, genital herpes, or genital warts, than the controls (table 2). Syphilis was significantly more prevalent in Bangladeshi men with eight patients having late latent disease and two having serological evidence with a history of previous treatment. The comparative figures were four and two in the control population. The most frequent diagnoses were NGU and candidal balanitis (confirmed or presumptive). One case of primary herpes simplex virus and five cases of recurrent disease were diagnosed in the control population, with no cases in the Bangladeshis. Hepatitis B was an infrequent diagnosis with one carrier identified in the Bangladeshi men and seven patients in each group showing evidence of natural immunity (HBcAb positive, HbsAg negative). None of the samples was found to be HIV seropositive.

Table 1 Sociodemographic and sexual history variables

	Bangladeshi men (n=104)	Control men (n=199)	p Value	Bangladeshi women (n=11)	Control women (n=218)	p Value
Median age (range)	31.5 (16–69)	30 (10–66)	ns	24 (14–60)	27 (15–81)	ns
Homosexuals	2 (1.9%)	24 (12.1%)	0.003	0	14 (6.4%)	0.02
Regular sexual partner	82 (82%)	146 (73.8%)	ns	104 (90.4%)	187 (85.8%)	ns
Married	71 (68.3%)	37 (18.6%)	<0.0001	98 (85.2%)	35 (16.1%)	<0.0001
Casual sexual partner*	21 (21.0%)	55 (28.3%)	ns	4 (3.5%)	31 (14.2%)	0.002
Local resident†	97 (93.3%)	76 (38.2%)	<0.0001	106 (92.2%)	89 (40.8%)	<0.0001
Symptomatic‡	67 (64.4%)	125 (62.8%)	ns	78 (67.8%)	128 (58.7%)	ns
Family planning				14 (12.4%)	21 (9.6%)	ns
Sexual dysfunction	13 (12.5%)	5 (2.5%)	0.001	0	0	ns
Asymptomatic	24 (23.1%)	69 (34.7%)	0.04	23 (20.0%)	69 (31.7%)	0.02
Self referrals	64 (61.5%)	171 (85.9%)	<0.0001	53 (46.1%)	176 (80.7%)	<0.0001
Referred + STI diagnosed	19 (18.3%)	15 (7.5%)	ns	40 (34.8%)	21 (9.6%)	ns

*Sexual partner other than regular partner reported in past 3 months; †resident in London Borough of Tower Hamlets; ‡primary presentation: genital symptoms.

Table 2 Sexually transmitted infections and other diagnoses

	Bangladeshi men (%)	Control men (%)	p Value	Bangladeshi women (%)	Control women (%)	p Value
Chlamydial infection	0/89	5/137 (3.6)	ns	3/86 (3.5)	11/148 (7.0)	ns
Gonorrhoea	5/89 (4.8)	7/137 (5.1)	ns	2/86 (2.3)	5/153 (3.2)	ns
Syphilis	10/91 (10.9)	6/139 (4.0)	0.04	6/94 (6.4)	3/171 (1.7)	ns
Pelvic inflammatory disease				11/86 (12.8)	7/156 (4.5)	0.02
Non-gonococcal urethritis	18/89 (20.2)	48/137 (35.0)	0.02			
Candidiasis	3/91 (3.3)	20/140 (14.3)	0.006	38/86 (44.2)	51/158 (32.3)	0.04
Recurrent herpes simplex	0/90	5/137 (3.6)	ns	0	0	
First episode genital warts	2/89 (2.2)	12/144 (8.3)	ns	2/86 (2.3)	9/156 (5.8)	ns
Recurrent genital warts	1/89 (1.1)	10/148 (6.8)	0.05	0	2/156 (1.3)	ns
Bacterial vaginosis				3/86 (3.5)	35/156 (22.4)	<0.0001
Trichomonas				3/86 (3.5)	5/156 (3.2)	ns

Similar patterns of disease emerged in the female patients (table 2). Overall, the prevalence of major STIs (syphilis, gonorrhoea, chlamydial infection, PID, trichomonas, genital herpes, and genital warts) was similar between the two populations (30.8% Bangladeshi women compared with 26.7% the control women). PID was the only statistically commoner diagnosis in the Bangladeshi women with 11 (12.8%) Bangladeshi women diagnosed compared to seven (4.5%) control women ($p=0.02$). Of note, there were two cases of early syphilis in the Bangladeshi women, two late latent disease, and two serological evidence with a history of previous treatment. The three cases in the control population were all previously treated patients. The most striking difference was the infrequent diagnosis of bacterial vaginosis in Bangladeshi women compared to the control women. One case of primary herpes simplex virus was diagnosed in a women from the control population. A carrier of hepatitis B was identified in each group and one Bangladeshi woman showed natural immunity compared to four of the control population. As with the men no cases of HIV were identified.

DISCUSSION

Bangladeshis accessing GUM services have a similar prevalence of STIs to the local indigenous population. Attendance is more likely to be dependent on referral from other medical agencies; in this Bangladeshi sample there was no evidence of referral bias in STIs diagnosed. There are some significant differences in reported sexual behaviour and relationships: the majority of Bangladeshis were married but extramarital or casual relationships were occurring with a similar frequency to the male control population, although were infrequently disclosed among the female patients. Studies from Bangladesh have shown that sex does occur outside marriage^{6,7} and is more commonly reported by men. It is not clear whether

this is a reporting or behavioural difference. Homosexuality was significantly less common in the Bangladeshi population compared to the controls. As homosexuality is much stigmatised in Asian culture including the Bangladeshi community,⁸ such a history may be more difficult to elicit. There were also differences in the reasons for presentation with sexual dysfunction being more common among Bangladeshi men. High rates of sexual dysfunction had been reported in this population previously.⁹ Asymptomatic presentation was less common among Bangladeshi individuals; however, the retrospective nature of the study did not allow us to fully investigate the relation between symptomatology and diagnosis. Other authors have described “dhatu-loss” disorders in both sexes in Asia¹⁰ and prospective research is needed to investigate its existence in UK populations.

Individual prevalence of STIs was similar, with the exception of increased syphilis in the Bangladeshi men and PID in the Bangladeshi women and decreased prevalence of NGU and candidal balanitis in the Bangladeshi men and bacterial vaginosis in the Bangladeshi women. We did not examine circumcision rates in the male patients; however, it might be expected that circumcision was commoner among the Bangladeshi men which might partly explain the lower rates of balanitis.

To our knowledge there are no published studies from the United Kingdom specifically examining the sexual health needs of the Bangladeshi population. Research on STIs in Bangladesh is scanty and studies suggest low prevalence of infection in the general population with 1% of women in a rural population having gonorrhoea or chlamydia,² but increased rates among commercial sex workers: 28.1% for syphilis, 18.2% for chlamydial infection, and 19.9% for gonorrhoea.³ The presence of biomedical and behavioural risk

factors for HIV transmission in Bangladesh suggests the importance of implementing cost effective prevention.¹¹

There is a considerable critical published literature on race, ethnicity, and STIs.¹² As there are no known biological reasons for STIs to vary between different populations, race or ethnicity may be acting as surrogates for other variables such as socioeconomic status, education, and religion. The study design and analysis used have not taken into consideration these variables. However, the homogeneous nature of the Bangladeshi community, plus the fact that the population sampled was almost entirely born in Bangladesh, we believe, negates some of these interpretation difficulties.

A retrospective study is always limited by the variability of documentation in the case record. However, by concentrating on key data such as the sexual history and diagnoses we have minimised this potential bias. Seventeen per cent of the Bangladeshi sample required interpreters which may have led to some reporting bias differential, although hospital advocacy workers were utilised where possible.

This study demonstrates that the sexual health needs of the Bangladeshi population are not dissimilar to other populations attending GUM services, although the mode of referral is more commonly through another medical agency. It is essential that practitioners do consider STIs in the differential diagnosis of presentations. Prospective studies in non-GUM clinics, such as family planning clinics, should be performed to see if these results are generalisable to the whole Bangladeshi community. Additionally, local links need to be established with other healthcare providers to increase understanding of health needs and provide culturally appropriate interventions.

CONTRIBUTORS

All authors contributed to the design of the study and writing of drafts. CJS and NKGS collected the data and analysed them; BTG put forward the original research proposal.

.....

Authors' affiliations

C J Skinner, N K G Saulsbury, B T Goh, Ambrose King Centre, Royal London Hospital, London E1 1BB, UK

Correspondence to: Dr C J Skinner;
celia.skinner@bartsandthelondon.nhs.uk

Accepted for publication 13 December 2001

REFERENCES

- 1 **East London and the City Health Authority**. *Health in the East End*. Annual public health report. London: East London and the City Health Authority, 1998/99:65.
- 2 **Hawkes S**, Morison I, Foster S, *et al*. Reproductive-tract infections in women in low-income, low-prevalence situations: assessment of syndromic management in Matlab, Bangladesh. *Lancet* 1999;**354**:1776–81.
- 3 **Sarkar S**, Islam N, Durandin F, *et al*. Low HIV and high STD among commercial sex workers in a brothel in Bangladesh: scope for prevention of larger epidemic. *Int J STD AIDS* 1998;**9**:45–7.
- 4 **Sabin K**, Hawkes S, Rahman M, *et al*. Barriers to seeking treatment for sexually transmitted diseases amongst the Dhaka slum dwellers. ASCON VII Conference. Dhaka, Bangladesh: International Centre for Diarrhoeal Disease Research, Bangladesh, March 1997, special publication No 57.
- 5 **Wasserheit JN**, Harris JR, Chakraborty J, *et al*. Reproductive tract infections in a family planning population in rural Bangladesh. *Stud Fam Plann* 1989;**20**:69–80.
- 6 **Aziz KMA**, Maloney C. Life stages, gender and fertility in Bangladesh. Dhaka, Bangladesh: International Centre for Diarrhoeal Disease Research, Bangladesh, 1985, Monograph No 3.
- 7 **Haider SJ**, Saleh SN, Kamal N, *et al*. *Study of adolescents: dynamics of perception, attitude, knowledge and use of reproductive health care*. Dhaka, Bangladesh: Population Council, 1997.
- 8 **Khan S**. *Perspectives on males who have sex with males in India and Bangladesh*. London: The Naz Foundation, September 1997, Mimeographed publication.
- 9 **D'Ardenne P**. Sexual dysfunction in a transcultural setting: assessment, treatment and research. *Sex Mat Ther* 1986;**1**:23–34.
- 10 **Lambert H**. Methods and meanings in anthropological, epidemiological and clinical encounters: the case of sexually transmitted diseases and human immunodeficiency virus control and prevention in India. *Trop Med Int Health* 1983;**3**:1002–10.
- 11 **Gibney L**, Choudhury P, Khawaja Z, *et al*. HIV/AIDS in Bangladesh: an assessment of biomedical risk factors for transmission. *Int J STD AIDS* 1999;**10**:338–46.
- 12 **Fenton K**, Johnston AM, Nicoll A. Race, ethnicity and sexual health. *BMJ* 1997;**314**:1703–4.